

ABSTRACT OF THE DISCLOSURE

1
2
3 An analyzer apparatus includes a receptacle for an ampoule,
4 an analysis system, an incubator, and a master control. The
5 analysis system includes a light source and a photodetector
6 positioned such that the light from the light source passes
7 through the receptacle. The master control includes a display, a
8 timer, and a memory provided with a look-up table. During
9 operation, an ampoule containing a sample and an indicator which
10 changes color when a certain level of biological activity is
11 present in the sample is placed within the receptacles. The
12 analysis system is operated to transmit light at the predetermined
13 wavelength through the ampoule to the detector, and a maximum
14 amount of light passing through the ampoule is logged. The
15 incubator is operated to heat the receptacle and the ampoule
16 therein to a desired test temperature and the timer is started.
17 The analysis system periodically transmits light through the
18 ampoule. Increased biological activity in the ampoule causes a
19 color change in the indicator which reduces light transmission
20 through the ampoule. When the light detected is reduced relative
21 to the light transmitted by a predetermined percentage of the
22 maximum amount of light, the master control signals that the test
23 is complete. Based on the amount of time required for this to
24 occur, the master control determines from the look-up table the
25 bacterial content in the sample at the start of the test.